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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/896,071	06/29/2001	Debashis Bhattacharya	162.7106USU	9529

7590 06/19/2003

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EXAMINER

DO, THUAN V

ART UNIT

PAPER NUMBER

2825

DATE MAILED: 06/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Applicati n No.

09/896,071

Applicant(s)

BHATTACHARYA ET AL.

Examiner

Thuan Do

Art Unit

2825

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 7, 10-14, 17, 20-24, 27 and 30 is/are rejected.
- 7) ☒ Claim(s) 5, 6, 8, 9, 15, 16, 18, 19, 25, 26, 28 and 29 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 1/08/02 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☒ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4, 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

### DETAILED ACTION

1. Claims 1-30 are pending in this office action.

#### ***Claims***

Claim 2, the term : "... the specific design context..." does not have a pre-determined term to support. It is suggested to change to "... a specific design context ...".

Correction is required.

#### **Oaths**

The record shows the oath received. Unfortunately it is not in the file, please send a copy of oath in the next response.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 103 that form the basis for the rejections under this section made in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4,7,10-14,17,20-24,27,30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsai et al., Pat. No. 5,617,328 in view of Morgan, Pat. No. 6,083,271.

**Regarding claim 1:** Tsai teaches a method comprising:

receiving a design specification for said design-specific cell (Tsai in col. 3, lines 24-36 where specification of cells are defined by a processor);

mapping to a transistor -level representation of said design-specific cell (Tsai in col. 3, lines 11-22 ), said mapping based on said design specification (Tsai in col. 3, lines 24-36 ); and

evaluating said transistor -level ( **Morgan** in col. 3, lines 24-33 ) representation of said design-specific cell for meeting said design specification (Tsai in col. 4, lines 41-64).

However, Tsai does not teach transistor -level. Morgan teaches this feature in column 3, lines 24-33.

It would have been obvious to one of ordinary skill in the integrated circuit design art at the time of the invention to have combined the teaching of Morgan into Tsai to have transistor -level because such transistor -level as taught by Morgan would have provided a specified gate level for evaluating a circuit design.

**Regarding claim 2:** Tsai teaches a method with design context (col. 2, lines 31-53 where a context of a circuit design is implemented).

**Regarding claim 4:** Tsai teaches a method with a netlist (figure 3c) and a standard-cell representation (col. 2, lines 31-53 ).

**Regarding claims 3,7,10:** These claims teach a method similar to claim 1 and rejected in a similar manner.

**Regarding claim 11:** Tsai teaches a system comprising:  
an interface (col. 4, lines 41-64 with box 170) for receiving a design specification for said design-specific cell (col. 3, lines 24-36 );  
means for mapping a transistor -level ( **Morgan** in col. 3, lines 24-33 ) representation of said design-specific cell, wherein said means for mapping uses said design -specific specification as a basis for the mapping (col. 3, lines 11-36 ); and  
means for evaluating said transistor -level representation of said design-specific cell for determining whether said transistor-level representation of said IC meets said design specification (col. 4, lines 41-64).

The motivation of Morgan into Tsai is the same as described in claim 1.

**Regarding claims 12-14,17,20:** These claims teach a method similar to claim 11 and rejected in a similar manner.

**Regarding claim 21:** This claim teaches a design process for the same system of claim 1 and rejected in the same rationale.

**Regarding claims 22-24,27:** These claims teach a method similar to claim 21 and rejected in a similar manner.

**Regarding claim 30:** This claim teaches a program for the same system of claim 1 and rejected in a similar manner.

#### ***Allowable Subject Matter***

3. Claims 5,6,8,9,15,16,18,19,25,26,28,29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The reason for allowance is the prior art does not teach all limitations specified in each dependent claim.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

#### **CONTACT INFORMATION**

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thuan Do whose telephone number is 703-305-2362. The examiner can normally be reached on Monday-Friday 8:30-5:30 (except 2nd Fridays).

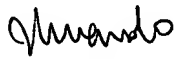
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew S. Smith can be reached on 703-308-1323. The fax phone numbers for the organization where this application or proceeding is assigned are 703305-3431 for regular communications and 703-305-3431 for After Final communications.

Application/Control Number: 09/896,071

Page 5

Art Unit: 2825

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0596.



Thuan Do  
Patent examiner  
6/13/03